"Safety At Sea" US Naval Academy 2-3 April 2005 Life-Raft Essentials

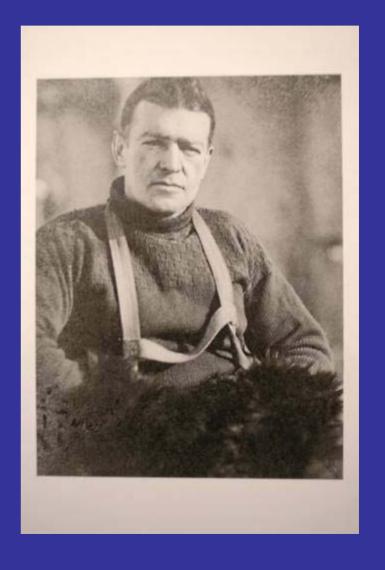
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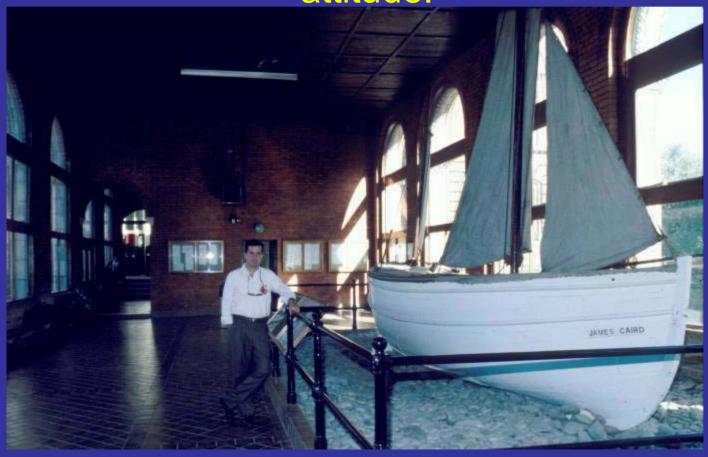
Sir Ernest Shackleton

 650 miles, 17 days, and one hurricane while traversing the Southern Ocean from Elephant Island to South Georgia, in a 22' ship's boat.



Lifeboats have come a long way since Sir Ernest's time.

The philosophy, however, remains the same: Survival is a matter of preparation, planning and attitude.



Life Raft Survival History and Highlights

- WWII B17 crew of 8, Pacific Ocean, 21 days (1 fatality), 3 Good Year "coastal" rafts.
- WWII US Navy patrol aircraft crew, Pacific Ocean, 34 days, 1 Good Year "coastal" raft.
- Dougal Robertson and family of 5 (Survive the Savage Sea), Pacific Ocean, 37 Days, 10 person "ocean" raft (abandoned after 17 days).
- Butler couple, Pacific Ocean, 66 days, 4 person "coastal" raft.
- Steve Callahan (Adrift), North Atlantic Ocean and Caribbean, 77 days, 6 person "offshore" raft.
- Bailey couple, Pacific Ocean, 117 days (record holders), 4 person offshore raft and a 9' inflatable.

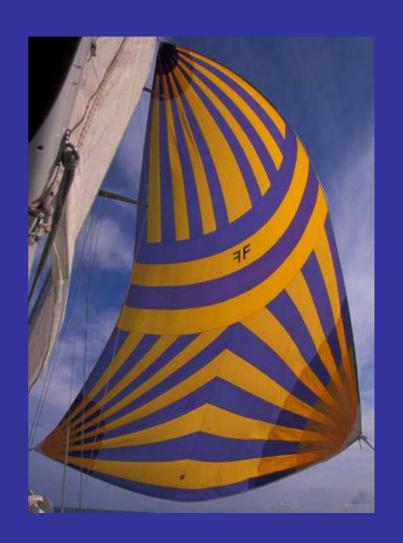






Raft Designations

- Coastal, designed for short duration, 1 day or less.
- Offshore, good for minimum of 4 or 5 days.
- Ocean, should last for a minimum of 30 days at sea.
- Where you are going will help you make the decision.



Life-Raft "Regulatory" Bodies

 USCG, Safety of Life at Sea (SOLAS) Convention, **International Maritime** Organization (IMO), **International Sailing** Federation (ISAF) and **International Standards** Organization (ISO). Recreational or yachtsman's rafts aren't required to comply with any regulations.



SOLAS EXPLAINED

- SOLAS, destined for commercial and passenger vessels
- SOLAS approved components, doesn't mean it's a SOLAS approved raft.
- The 6 person SOLAS requirement, 4 sq ft
- USCG & SOLAS approval

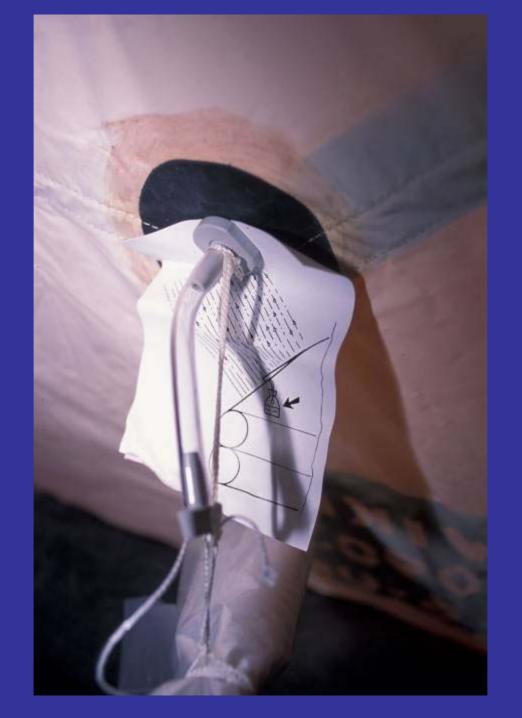


A Raft of Features From Which to Choose

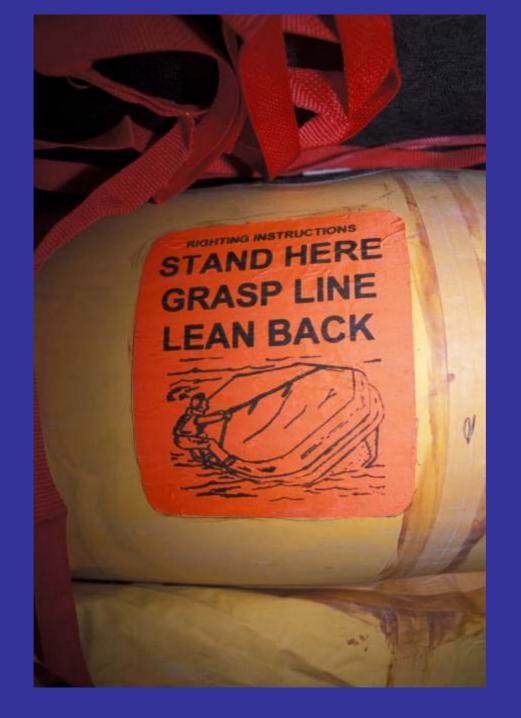
- Stability enhancing ballast bags.
- Canopy, lights inside and out, rain collection.
- Painter, lifelines inside and out, drogue.
- Provisions for righting (by one person).
- Boarding ladder or ramp.
- Individual air chambers (able to support crew when holed).
- Insulated floor (doubled or foamed).
- Easy to use pump.
- Accessories or contents.











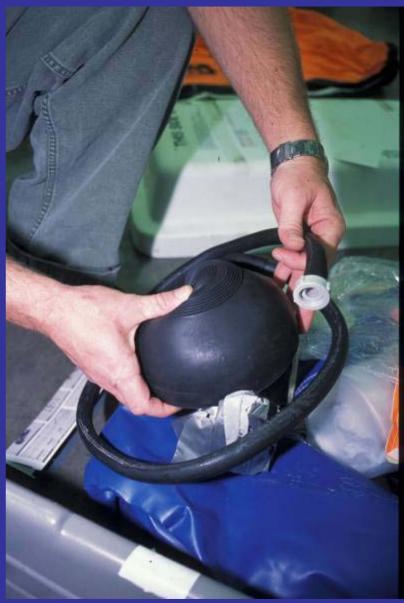














Service and Repacking

- How often? No mandatory requirement (like a routine doctor's check-up). Most manufacturers recommend every 1-3 yrs.
- Vacuum packaging, extends life of raft as well as service interval.
- Choose repack facility carefully, better if they are certified to do commercial/SOLAS/USCG rafts.
- Call raft manufacturer or visit US Marine Safety Assoc (<u>www.usmsa.com</u>) website.







- Visit the repacking facility when your raft is inflated.
- You can have personal items inserted into the raft, eyeglasses, med's, communication gear such as handheld VHF, aircraft VHF/UHF transceivers, SAT phone and EPIRB.











Installation and Deployment

- For canisters, on deck storage (or in a dedicated on deck compartment) is the only option.
- Must be able to retrieve and deploy valise within 15 seconds (ISAF reg's).
- Valises must remain dry in storage, on deck canisters must be exceptionally well secured.
- Hydrostatic release option.









Hydrostatic Release Parameters

- Submerge release depth, 12 feet.
- Painter "weak link", 270 lbs or 500 lbs, green and red respectively.
- If manually deployed, "weak link" is disabled
- Two year replacement interval.







Life-Raft Philosophy

- Unless the flames are licking at your heels, don't deploy the liferaft until you have to step up to get into it.
- Your own vessel, as long as it's afloat, is the best lifeboat you have.



Thank You

If you have any questions please feel free see me after the lecture or e mail me.

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